

# PATENT COOPERATION TREATY

**Sender: THE INTERNATIONAL PRELIMINARY  
EXAMINING AUTHORITY**

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF INTERNATIONAL PRELIMINARY  
REPORT  
(Rule 71.1 PCT)

<b>To:</b> HAMANN, Arndt Saurer GmbH & Co. KG Landgrafenstrasse 45 41069 Mönchengladbach GERMANY	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"> <b>Date of mailing</b>  <i>(Day/month/year)</i> </td> <td style="width: 40%;"> <b>28.03.2006</b> </td> </tr> </table>	<b>Date of mailing</b> <i>(Day/month/year)</i>	<b>28.03.2006</b>
<b>Date of mailing</b> <i>(Day/month/year)</i>	<b>28.03.2006</b>		
<b>Applicant's or agent's file reference</b>  WS 2254 PCT	<b>IMPORTANT NOTIFICATION</b>		
<b>International application No.</b>  PCT/EP2004/014787	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> <b>International filing date</b>  <i>(Day/Month/Year)</i>                  29.12.2004             </td> <td style="width: 50%;"> <b>Priority date <i>(Day/Month/Year)</i></b>                  06.02.2004             </td> </tr> </table>	<b>International filing date</b> <i>(Day/Month/Year)</i> 29.12.2004	<b>Priority date <i>(Day/Month/Year)</i></b> 06.02.2004
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<b>Applicant</b>  SAURER GMBH & CO. KG			

1. The Applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the International Preliminary Report on patentability and its annexes, if any, established on the International Application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for Communication to all the elected Offices.
3. Where required by any of the elected offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those offices.
4. **REMINDER**

The Applicants must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the information sent by the International Bureau with form PCT/1B/301).

Where a translation of the International Application must be furnished to an elected Office, that translation must contain a translation of any annexes to the International Preliminary Report on patentability. It is the Applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices see Volume II of the PCT Applicant's guide.

The Applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purpose of International Preliminary Examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure of the invention and clarity and support for the claims.

<b>Name and mailing address of the International Examining Authority:</b> European Patent Office – P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk – Netherlands Tel. +31 70 340 -2040, Tx: 31 651 epo nl Fax: +31 70 340 - 3016	<b>Authorised officer</b>  Appelen, A  Tel. +31 70 340 – 4846
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**EPO stamp**

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

Applicant's or agent's file reference <b>WS 2254 PCT</b>	FOR FURTHER ACTION      See Form PCT/IPEA/416	
International application No. <b>PCT/EP2004/014787</b>	International filing date (Day/Month/Year) <b>29.12.2004</b>	Priority date (Day/Month/Year) <b>06.02.2004</b>
International Patent Classification (IPC) or national classification and IPC <b>INV. D01H4/12 F16C39/06 D01H4/14</b>		
Applicant <b>SAURER GMBH &amp; CO. KG</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority according to Article 35 and transmitted to the Applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising</p> <p>a. <input type="checkbox"/> Sheets (sent to the Applicant and to the International Bureau), as follows:</p> <p><input type="checkbox"/> Sheets of the description, claims and/or drawing which have been amended and are the basis of this report and/or sheets containing rectifications authorised by this authority (see Rule 70.16 and Section 607 of the Administration instructions).</p> <p><input type="checkbox"/> Sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the International Application as filed, as indicated in Item 4 of Box No. 1 and the supplemental box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s), containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the supplemental box relating to the sequence listing (see Section 802 of the Administrative Instructions).</p>																
<p>4. This report contains indications relating to the following items:</p> <table><tr><td><input checked="" type="checkbox"/> Box No. I</td><td>Basis of the report</td></tr><tr><td><input type="checkbox"/> Box No. II</td><td>Priority</td></tr><tr><td><input type="checkbox"/> Box No. III</td><td>Non-establishment of opinions with regard to novelty, inventive step and any industrial applicability</td></tr><tr><td><input type="checkbox"/> Box No. IV</td><td>Lack of unity of invention</td></tr><tr><td><input checked="" type="checkbox"/> Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement</td></tr><tr><td><input type="checkbox"/> Box No. VI</td><td>Certain documents cited</td></tr><tr><td><input type="checkbox"/> Box No. VII</td><td>Certain defects in the international application</td></tr><tr><td><input type="checkbox"/> Box No. VIII</td><td>Certain observations on the international application</td></tr></table>	<input checked="" type="checkbox"/> Box No. I	Basis of the report	<input type="checkbox"/> Box No. II	Priority	<input type="checkbox"/> Box No. III	Non-establishment of opinions with regard to novelty, inventive step and any industrial applicability	<input type="checkbox"/> Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/> Box No. VI	Certain documents cited	<input type="checkbox"/> Box No. VII	Certain defects in the international application	<input type="checkbox"/> Box No. VIII	Certain observations on the international application
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Date of submission of the request for preliminary examination <b>09.06.2005</b>	Date of completion of this report <b>28.03.2006</b>
Name and mailing address of the International Examining Authority: <b>European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk – Netherlands Tel. +31 70 340-2040 Tx: 31 651 epo nl Fax: +31 70 340-3016</b>	Authorised officer  <b>Henningsen, O</b>  Tel. +31 70 340- <div style="text-align: right;"><b>EPO stamp</b></div>

International Application No. PCT/EP2004/014787

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**Box No. 1      Basis of the report**

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1.      With regard to the **language**, this report is based on the International Application in the language in which it was filed, if nothing different is stated under this point.

- ☐      The report is based on a translation from the original language into the following language, which is the language of the translation, which has been filed for the following purpose:
- ☐          international search (according to Rules 12.3 and 23.1b)
  - ☐          publication of the international application (according to Rule 12.4)
  - ☐          international preliminary examination (according to Rules 55.2 and/or 55.3)

2.      With regard to the **elements\*** of the international application, the report is based on *(replacement sheets which have been furnished to the receiving office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, pages**

1-9                                      in the originally filed version

**Claims, No.**

1-5                                      in the originally filed version

**Drawings, sheets**

1/2-2/2                                      in the originally filed version

☐      a sequence listing and/or any related tables – see supplemental box relating to sequence listing

3. ☐      The amendments have resulted in the cancellation of:
- ☐          Description: page
  - ☐          Claims: No.
  - ☐          Drawings: Sheet/Figs.
  - ☐          Sequence listing (*specify*):
  - ☐          any tables relating to the sequence protocol (*specify*):

4. ☐      This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered in the opinion of the authority to go beyond the disclosure as originally filed, as indicated in the supplemental box (Rule 70.2 c)).
- ☐          Description: page
  - ☐          Claims: No.
  - ☐          Drawings: Sheet/Figs.
  - ☐          Sequence listing (*specify*):
  - ☐          any tables relating to the sequence listing (*specify*):

**\* If Item 4 applies, some or all of the sheets may be marked "superceded".**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International Application No.  
PCT/EP2004/014787

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; documents and explanations supporting such statement**

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1. Statement
- |                               |                 |
|-------------------------------|-----------------|
| Novelty (N)                   | Yes: Claims 1-5 |
|                               | No: Claims      |
| Inventive step (IS)           | Yes: Claims 1-5 |
|                               | No: Claims      |
| Industrial applicability (IA) | Yes: Claims 1-5 |
|                               | No: Claims      |

2. Documents and explanations (Rule 70.7):
- see supplementary sheet**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(SUPPLEMENTARY SHEET)**

**International Application No. PCT/EP2004/014787**

**Item V**

1. Reference is made to the following document:

D1: DE 100 32 440 A1 (W. SCHLARFHORST AG & CO) 17<sup>th</sup> January 2002

2. Document D1 is regarded as the closest prior art compared to the subject of claim 1. It discloses (the references in brackets relate to this document):

Rotor shaft of a spinning rotor with an annular magnetic bearing component (8), which is secured with respect to the centrifugal force effective during the spinning process by a ring liner (10), for radially and axially supporting the rotor shaft, wherein the rotatable magnetic bearing component (8) interacts with a stationarily arranged magnetic bearing component (19).

- 2.1 The subject of claim 1 therefore differs from the known D1 in that the magnetic bearing component connected to the rotor shaft (4) of the spinning rotor (3) is configured as a slotted permanent magnet ring (32, 42), in order to ensure the deformability required to draw on a ring liner (6, 7).

Accordingly, the subject of claim 1 of the application is novel in the context of Article 33(2) PCT.

- 2.2 The object to be achieved by the present invention can be seen in that the assembly of the magnetic bearing component has to be improved or simplified.
- 2.3 The solution proposed in the characterising part of claim 1 of the application to this object is not made obvious by any of the documents cited in the search report because the possibilities of a slotted permanent magnet ring are not dealt with.

This solution is therefore based on an inventive step (Article 33(3) PCT).

3. Claims 2 to 5 are dependent on claim 1 and therefore also meet the requirements of the PCT with regard to novelty and inventive step.